

I Claim:

- 1 1. A method for operating a dual-mode mobile unit arranged to transmit and
2 receive signals using first and second wireless protocols, comprising:
3 operating said mobile unit under said first wireless protocol;
4 reserving a transmission time interval in a frame of said first wireless protocol; and
5 operating said mobile unit under said second wireless protocol during said reserved
6 time interval.

- 1 2. A method as specified in Claim 1 further comprising operating said mobile
2 unit to transmit using said first wireless protocol during an initial portion of said reserved time
3 interval.

- 1 3. A method as specified in Claim 2 further comprising operating said mobile
2 unit to transmit using said first wireless protocol during a terminal portion of said reserved time
3 interval.

- 1 4. A method for operating a dual mode mobile unit as specified in Claim 1,
2 wherein said operating said mobile unit under said second wireless protocol comprises operating
3 said mobile unit under said second wireless protocol to act as a master unit for at least one slave unit
4 operating under said second wireless protocol, reserving a transmission time interval in a frame of

1 said first wireless protocol and controlling said slave unit using said second wireless protocol to
2 transmit using said second wireless protocol during said reserved time interval.

1 5. A method as specified in Claim 4 further comprising operating said mobile
2 unit to transmit using said first wireless protocol during an initial portion of said reserved time
3 interval.

1 6. A method as specified in Claim 5 further comprising operating said mobile
2 unit to transmit using said first wireless protocol during a terminal portion of said reserved time
3 interval.

1 7. A method for operating a dual mode mobile unit as specified in Claim 1
2 wherein said reserving transmission time is repeated at a selected duty cycle.

1 8. A method for operating a dual mode mobile unit as specified in Claim 7
2 wherein said selected duty cycle is varied based on the activity of radio traffic using said second
3 wireless protocol.

1 9. A method for operating a dual mode mobile unit comprising:

2 providing a first transmitter for operation using a first wireless protocol and
3 responsive to first protocol baseband signals;

4 providing a first receiver for operation using said first wireless protocol and providing
5 output first protocol baseband signals;

6 providing a second transmitter for operation using a second wireless protocol and
7 responsive to second protocol baseband signals;

8 providing a second receiver for operation using said second wireless protocol and
9 providing output second protocol baseband signals;

10 providing a digital processor programmed to process signals for said first and second
11 protocols, responsive to received digital signals in a first protocol frame format and providing output
12 digital transmission signals in said first protocol frame format;

13 converting said output first and second protocol baseband signals to said received
14 digital signals in said first protocol frame format; and

15 converting said output digital transmission signals from said first protocol frame
16 format to said first or second protocol baseband signals.

1 10. A dual mode mobile unit for operating according to first and second wireless
2 protocols, comprising

3 first and second RF modules, respectively for transmitting and receiving signals
4 according to first and second wireless protocols, and each responsive to baseband signals for
5 transmission and providing output baseband signals on reception;

6 a digital processor responsive to received digital signals for processing said digital
7 signals according to one of said first and second protocols; and

8 an interface unit for receiving baseband signals from said first and second RF
9 modules and supplying corresponding digital signals to said processor, and for receiving digital
10 signals from said processor and supplying first and second corresponding baseband signals to said
11 first and second RF modules respectively.

11. A dual mode mobile unit according to Claim 10 wherein said processor controls said interface unit to send and receive signals to and from said first and second RF modules.

1 12. A dual mode mobile unit according to Claim 10 wherein said interface unit
2 receives output baseband signals from said second RF modules and supplies said corresponding
3 digital signals to said digital processor in a first protocol frame format, and receives digital signals
4 from said digital processor in said first protocol frame format and supplies corresponding baseband
5 signals to said second RF module according to said second wireless protocol.

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